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5 October 1979

Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

(FOUO 12/79)

FBIS FOREIGN BROADCAST INFORMATION SERVICE

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WORLDWIDE AFFAIRS

SHUTDOWN THREAT TO 23 BBC FOREIGN LANGUAGE BROADCASTS

London THE OBSERVER in English 26 Aug 79 p 1 LD

[Article by Robert Taylor: "23 BBC Foreign Services at Risk"]

[Text] Every BBC foreign language broadcasting service, except those transmitted to the communist and Arab worlds, faces shutdown in order to make a 4 million pounds a year saving in government spending.

Talks between the Foreign and Commonwealth Office and Mr Gerard Mansell, managing director of the BBC World Service and deputy director-general, are entering a decisive phase. Civil servants have made it clear to the BBC that as many as 23 out of the 38 language services broadcast from Bush House, in London, are at risk.

Areas of the world that would cease to be covered by foreign language broadcasting are Latin America (despite Britain's vital economic interests in that region), western and southern Europe, Africa, south-east Asia, the Far East and the Indian subcontinent.

The BBC would stop broadcasting in Spanish, French, Hindi, Swahili, Japanese and many other languages.

The government has decided to reprieve the English language service broadcasts of the BBC World Service for the moment. In a personal letter to the BBC director-general, Sir Michael Swann, Mrs Thatcher assured him that the World Service was 'one of the things that Britain does best.'

The prime minister assured Sir Michael that the World Service had a secure and prosperous future, but like every other body dependent on government revenue it must make sacrifices.

The decision to keep the English language services means that none of the BBC's relay stations around the world will be shut down, but a number which have recently been expensively refurbished, like Singapore, the Ascenison Islands and Antigua, will have to operate at well below capacity.

The Foreign and Commonwealth Office insists there must be a 10 per cent cut in the Bush House services in the financial year to March 1981, which means a reduction of between 17 and 25 percent in output.

It is not clear whether the BBC World Service, which is entirely funded by the government and, unlike the domestic network, receives no revenue from the licence fee, must face even harsher cutbacks by 1983.

Earlier this summer Mr Mansell was informed by the Foreign and Commonwealth Office that he could have to consider a 20 per cent cutback over three years. That threat appears to have been withdrawn.

Last Thursday Mr Mansell told BBC staff at Bush House that the World Service faced the most serious crisis in its history. BBC officials are shocked at both the haste and crudity of the government plan for spending cuts in the foreign language services, which are renowned across the world for their impartiality.

There is particular concern that the main thrust of the foreign language broadcasting output will be to the communist world. In the view of Mr Mansell, that will make it easier for communist governments to accuse the BBC of merely transmitting propaganda and not unbiased information.

One example of what is considered the lack of understanding displayed by the Foreign and Commonwealth Office is their failure to decide whether the BBC should go on broadcasting in German. Civil servants thought that sector was covered by Western European services and should be cut, until the BBC pointed out the existence of communist Eastern Germany.

A serious threat is also facing the British Council, which is being asked to cut its budget in the next financial year by about 17 per cent.

Most of the council's annual revenue of 100 million comes from the Foreign and Commonwealth Office. Cutbacks of that magnitude would have a disastrous effect on the council's services as an English teaching agency and cultural institution in less developed areas of the world.

CSO: 5500

WORLDWIDE AFFAIRS

CUBA'S SOVIET-FINANCED COMMUNICATIONS SYSTEM TO BE INSTALLED

Havana PRELA in Spanish 1227 GMT 10 Aug 79 PA

[Article by Isabel Montero]

[Text] The installation of a transmission system by means of a coaxial cable, a project totally financed by the Soviet Union, will place Cuba alongside the most developed countries in the field of long distance communications.

The first installation stage of the line, with over 1,800 km of central cable and branches to 14 provincial capitals and other important cities in the country, will be concluded during the first quarter of 1981.

It will be the greatest investment ever made in Cuba in communications matters. The section scheduled for 1978 was 124 percent completed, with the laying of 48.5 km of cable out of the scheduled 38.8 km.

Cuba's development during the 20 years of its revolutionary process has created an increased demand for long-distance services and the existing system is insufficient to meet the extensive demands of telephone traffic.

In view of this, the Soviet and Cuban governments, in December 1972 and April 1976, signed economic cooperation agreements for the laying of the communications line by means of a coaxial cable, whose main system comprises two pairs of lines with 10 symmetric conductors.

The coaxial cable is comprised of two conductors: a solid, small-diameter conductor placed within a hollow one which wraps around the first one concentrically.

Some lines connected to the main system use symmetric high frequency cables which (?consist) of various pairs of cables gathered internally, isolated from each other and covered with aluminum and lead. Just like the coaxial cable, the entire assembly is properly protected from external influences.

Both cables will have a continuous gas pressure system in order to increase its dependability, insure control, seal the wrapping and prevent the penetration of humidity during a break. The cable, whose installation began on 3 May 1978, will comprise the country's main transmission system.

During its first phase of operations, it will have a 920 telephone line capacity and will be able to carry a television signal by means of an integral linkage with the new microwave system. They will act as mutual reserves in case of breaks.

The coaxial cable structure prevents considerable loss of the frequency spectrum and allows a high degree of protection against interference. With the use of conventional methods this number of telephone channels would require 1.920 copper threads.

The completion and implementation of this project called "Cubanacan" will establish the conditions needed for an automatic telephone teleselection system between all the country's important cities and municipalities. It will also increase the number of telephone lines between towns.

This project, which dozens of Soviet specialists have worked on since 1974, includes the installation of 2,179 km of cables through a route consisting of all types of soils.

Besides the use of the cable for telephone and telegraph communications and long-distance transmission of data, the coaxial cable will also be used as a reserve for a television channel of the new national microwave system recently installed in Cuba.

Facsimile transmission of the press, which will avoid using air transportation to various regions, is also another of the planned objectives.

The installation of the coaxial cable involves the building of repeating stations every 5.7 km in specially designed underground stations which will not require personnel and are provided with a special alarm system control for the detection and correction of possible errors.

Fourteen semiterminal stations, of approximately 1,500 sq meters each, will also be built. They will be installed in a central building [words indistinct] telephone center and outside multiplex equipment will be joined to the coaxial cable [words indistinct] to this center will be added [word indistinct] telefeeding and telemechanics equipment for the automatic repeating stations. The [word indistinct] installation of coaxial transmission cable will establish the basis for the future national telex network.

CSO: 5500

BRIEFS

'PRELA'-'AP' CONTRACT--Havana, 13 Aug (PL)--PRELA and the Associated Press have signed a contract for the exchange of their respective news services. The distribution in Cuba of U.S. press agency material and of PRELA in the United States had been interrupted since 1969. [Havana PRELA in Spanish 1815 GMT 13 Aug 79 PA]

CSO: 5500

BRIEFS

COMPUTER MAINTENANCE SOFTWARE--Nishimusashi Information Center, working under contract with the Information Processing Association, has developed and started sales of a computer maintenance assistance program (MAID) that has enabled the center to cut maintenance time by 80 percent and that can also reduce the time required for new program development operations by 43 percent. [Tokyo NIKKAN KOGYO SHIMBUN in Japanese 3 Sep 79 p 12]

PROGRAM LOGIC DESIGN--Hitachi Central Research Laboratory has developed a PAD (problem analysis diagram) format for depicting logic design that cuts the work involved in programing by several tens of percent to a small fraction of that required when using the flow chart method. Programming directly from the diagram using COBAL, Fortran, PL/1, Pascal, Assembler, and other languages is a major feature, and advantages to the method include simplicity, easy avoidance of errors, and easier checking and debugging. Writing IBM's HIPO processing portion in PAD is said to clarify data flow and processing, enable clear determination of test standards, and clearly show what test cases must be run. [Tokyo NIKKAN KOGYO SHIMBUN in Japanese 21 Aug 79 p 5]

NEC MASS STORAGE SYSTEM--Nippon Electric has developed a mass storage system for the ACOS series computers, employing a virtual file format with mass data file and disk subsystem independently connected to the host. The characteristic feature of the system is use of existing arbitrary disk equipment as a staging disk subsystem. Because staging from the mass data file to the disk subsystem is via the host, a 0 to 3 percent (no more than 10 percent at worst) load is imposed on the host, but MSS characteristics surpass that of the IBM IVTOC/2 cartridge because label information is provided to each data cartridge. [Tokyo NIKKEI ELECTRONICS in Japanese 6 Aug 79 p 77]

HITACHI TECHNOLOGY TIE-UP--Hitachi Ltd has recently concluded a comprehensive technology tie-up contract on office computers with Tongyang Nylon of South Korea. Hitachi will provide the necessary technical information and some components to support South Korea's domestic computer production plan, allowing South Korea to take the first step toward domestic computer production. According to the contract, Hitachi will provide technical guidance and receive 3 percent of sales as a technology use fee. [Tokyo NIKKEI ELECTRONICS in Japanese 6 Aug 79 p 201]

CSO: 5500

USSR

ELECTROMAGNETIC COMPATIBILITY OF TELEVISION BROADCASTING SERVICES DISCUSSED

Moscow ELEKTROSVYAZ' in Russian No 7, Jul 79 pp 1-4

/Article by V. A. Borovkov and M. G. Lokshin: "Questions About the Electromagnetic Compatibility of Television Broadcasting Services"/

/Text/ The International Administrative radio conference, which was held in 1971 in Geneva, for the first time granted permission to FM television broadcasting services to use a portion of the band, which had previously on a priority basis been allocated to the OBP-AM television broadcasting services in all three regions: region 1 includes Europe, the USSR, Mongolia and Africa; region 2 includes North and South America and Greenland; region 3 includes Asia (excluding the uSSR and Mongolia), Australia and Oceania. This same conference commissioned the MKKR /International Consulting Committee on Radio Communications/ to immediately study the criteria by which it is necessary to be governed when these services are jointly using frequencies; the MKKR also compiled a Recommendation in regard to the permissible value of the power-flux density that is created by the FM signal in the zone served by the OBP-AM television broadcasting station.

Among the basic initial data for solving this problem were the suppression ratios, which in this instance had been previously defined by the communications administrations of the USSR, USA, England, France and others; the basic results of this research are shown in (1). However, in view of the fact that the conditions for performing this research differed substantially, the MKKR's attempts to compare the obtained results were unsuccessful.

Taking this into consideration, the MKKR recognized the expediency of stipulating unified conditions for conducting such measurements (see the draft of the New Report of the working group 10/11V MKKR, document 11/480, 1977) and appealed to all involved communications administrations to continue research in this direction. This article outlines the results of research in determining the suppression ratios for a OBP-AM television signal, which were performed in accordance with the most recent recommendations of the MKKR.

The test stand. A structural diagram of the test stand is presented in Figure 1.

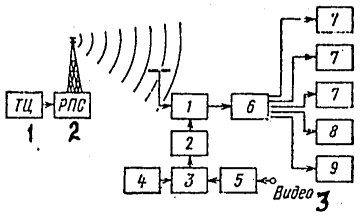


Fig. 1

Key: 1 - Television center; 2 - Radio-television broadcasting station; 3 - Video

The color television signals of the SECAM, PAL and NTSC systems are formed in the television center and radiated in a standard TV channel of the radio-television broadcasting station. The useful OBP-AM signal that is used for the TV antenna for collective use is fed into the forming device 1.

The FM oscillator serves as the source of interference, the fluctuations of which are modulated by the videosignal and the accompanying sound signal (on a subcarrier frequency of 6.5 MHz). The central frequency of the oscillator can be retuned within $\pm$ 10 MHz of the medium frequency, which coincides with the frequency of the carrier of the image of the useful AM signal. In the channel where the interfering FM signal is formed it is possible to regulate the amount of frequency deviation within the range of $\pm$ 15 MHz. An additional serrated signal can also be fed into the input of the FM oscillator from device 4 by means of pulse repetition frequency of 50 Hz (a signal for dispersing the power of interference); the greatest change in the frequency of the carrier under its influence can reach $\pm$ 4 MHz.

A standard predistorted circuit 5 was also included in the channel where the FM interference is formed for the linear processing of the TV signal. From the output of the forming device the useful signal and the interference enter the distributing device 6, and from this into the standard color TV receivers 7 of the SECAM, PAL and NTSC systems and then into the measuring devices - the signal level measuring device 8 and the spectrum analyzer 9 for the constant monitoring of the levels of the useful signal and interference and the shapes of their spectra. The required signal to noise ratios of the levels in the process of measuring are established by the use of a calibrated attenuator.

Conditions and sequence of measurements. The measurements are performed by means of subjective statistical examinations of the quality of the image

in accordance with Recommendation 500 of the MKKR. Observers are presented in random order with images having various levels of interference, which they evaluate on a scale of 1 to 5 devised by the MKKR: 5 - unnoticeable interference (excellent); 4 - noticeable interference which does not hinder (good); 3 - interference hinders slightly (satisfactory); 2 - interference hinders (poor); and 1 - interence hinders considerably (very poor). Specialists and unskilled observers, a total of 40 people, were used for the measurements. As a rule, individual observers participated in each series of measurements more than once, therefore the total number of evaluations in each test was approximately 100.

Before the measurements began the observers were given instructions, in the process of which the purpose and sequence for conducting the measurements were outlined, the criteria for submitting evaluations, an undistorted reference image deserving of an excellent evaluation was presented and the nature of the effect of the interference being examined was demonstrated.

Prior to each series of measurements the values of the suppression ratios, by which the image quality corresponded to the greatest noticeability of interference and its total absence, were defined according to the results of an examination of a small group of specialists (3-4 persons). In the obtained range at equal intervals seven values of signal to noise ratios were established, including extreme values, which were then established in the process of the examinations; these values were amended according to the results of the first series of each of the tests.

The measurements were made under the following conditions: color slides such as "the girl in the green dress" and "basket with fruit", as recommended in document 11/480 of the MKKR, were used as useful test images; an image of colored stripes was used as the modulating signal when forming FM interference; the parameters of the useful signal corresponded with the systems and standards of K/SECAM, M/NTSC and G/PAL; the deviation Dv of the frequency of the FM interference (from peak to peak) was set at 8, 16 and 22 MHz; the polarity of modulation was such that the lesser values of the frequency of the FM interference corresponded to the transmission of the peaks of the synchropulses; the carrier frequencies of the useful and hindering signals were close to each other, which provided for the maximum noticeability of the interference; the ratio of the range of the videosignal to the unsuspended intensity of noise at receiver output was no less than 40 dB.

Results of the measurements. The characteristic curves of image quality upon the level of the hindering FM signal in connection with its various parameters, which were obtained for the individual systems, were so close that they could be generalized and presented in a single curve. Such a result was anticipated, since with the interference in the combined channel (without combining the carrier frequencies) the interference basically affected the brightness signal, rather than the color signal, i.e., all systems were approximately in the same conditions.

Figure 2 shows the generalized curves which reflect the relationship of the quality of the TV image upon the level of interference for three values of deviation in the frequency of the hindering FM signal. The obtained data on the whole conform sufficiently to the results of the majority of similar research, as can be seen in the table. Only the discrepancy between the results of this research and work (2) for the threshold of noticeability (an evaluation of approximately 4.5 on the MKKR's scale of one through five) and (3) for the acceptable level of interference (an evaluation of 3.5) is noteworthy. In the first instance for the G/PAL system the value of the suppression ratio was equal to a value that corresponds to the threshold of noticeability of unmodulated sinusoidal interference (60 dB) (4), which does not conform to theory. In truth, the pulses of the hindering FM oscillation with the oscillations of the carrier frequency of the OBP-AM television signal create a pattern on the image, the structure of which takes on a less ordered nature as the deviation in the frequency of the FM oscillation is increased, as a consequence of which the noticeability of the interference is decreased; experimental research confirms this position (5).

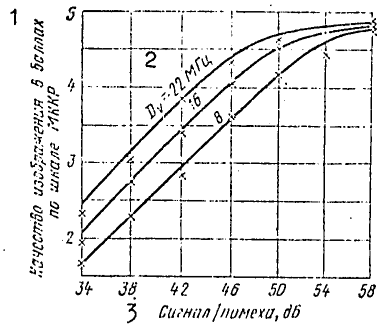


Fig. 2

Key: 1 - Image quality evaluation on the MKKR scale of 1 to 5; 2 - Deviation = 22 MHz; 3 - Signal to noise ratio, in dB

In the second instance the lesser value of the suppression ratio, obtained in (3), can be explained by the fact that it was determined in the presence of significant levels of noise, which concealed the noticeability of the FM signal. Besides this, the FM signal in (3) did not have predistortions, which increase the noticeability of interference.

From the curves in Fig. 2 it can be seen that by increasing the range of the deviation of the frequency of the hindering FM signal by 1 MHz the

value of the suppression ratio is lowered on the average by .4 dB. According to measurement data of the British Broadcasting Corporation (BBC) (6), on the average this value is .5 dB/MHz.

Table

Criteria of the affect of interference	Standard and TV system	Country (organization), literature source	Signal to noise ratio, dB, with deviation, MHz		
			8	16	22
Threshold of noticeability of interference	M/NTSC	Japan (1)	52	49	48*
	M/NTSC	USA, (7)	-	48***	-
	I/PAL	England, (6)	53	-	-
	G/PAL	European Radiobroadcasting Union (EBU) (2)	57-62	-	-
	K/SECAN				
	M/NTSC G/PAL	USSR	53	50	47
Evaluation of 4 on MKKR scale	K/SECAM	France, (8)	-	45**	-
	K/SECAM M/NTSC G/PAL	USSR	49	45	43
Useable interference level	M/NTSC	USA, (3)	-	35***	-
	M/NTSC	Japan, (1)	46	42	43*
	K/SECAM M/NTSC G/PAL	USSR	45	42	40

* Deviation = 24 Mhz; ** Deviation = 13.5 MHz; *** Deviation = 18 MHz

Research has also shown that the dispersion of the energy of the FM interference by the serrated signal weakens its hindering affect, and what is more the advantage from introducing the dispersion is lowered to the extent that the range of the deviation of the interference frequency is increased. Thus, when the Dv [deviation] = 8 MHz the suppression ratio is decreased to the extent that the dispersion is increased by approximately 2.5 dB/MHz, and when Dv = 22 MHz by 1 dB/MHz. The experimental relationship of the coefficient of advantage M_{α} upon the range of the deviation of the FM frequency is shown in Fig. 3.

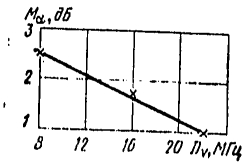


Fig. 3

In the common instance, i.e., with any values of the range in deviation of the frequency of the FM interference and dispersion, to estimate the value of the suppression ratio of OBP-AM television broadcasting systems when there is interference from FM television services one can use the following formula:

$$Rq = Roq - 0.4\ (Dv - Dov) - M_{\alpha}\ Ddv,$$

where Rq is the unknown suppression ratio in dB; Roq is the suppression ratio for the value of the frequency deviation Dov, taken as the basic (determined by the appropriate curve in Fig. 2); Ddv is the range of frequency deviation by the dispersion signal in MHz.

For example, assuming Dov = 8 MHz for a value of 4.5 in Fig. 2, we define Roq = 52.5 dB. Then, for the same value with a frequency deviation of Dv = 22 MHz in the absence of dispersion (Ddv = 0) the value Rq = 52.5 - 0.4 (22 - 8) = 46.9 dB.

Knowing the value of the suppression ratio, we rate the values of the remaining components of the right portion of the basic equation, recommended by the MKKR (9),

$$Fs = Ftqp - Rq + Dd + Dp - Mr - Mi,$$

where Fs is the maximum power-flux density of the hindering signal (in the case under examination an FM television service), dBW/M^2; Ftqp is the minimum power-flux density of the useful signal (in the case under examination an OBP-AM television service) subject to suppression, dBW/M^2; Dd is the coefficient, considering the difference in the amplification of the receiving antenna of the useful and hindering signals in dB; Dp is the coefficient , considering the difference in the polarized selectivity of the receiver when receiving the useful and hindering signals in dB; Mr is the coefficient, considering the affect of reflections from the earth's surface, i.e., the possibility of increasing the power of interference upon reception at the expense of the wave that is reflected from the earth's surface in dB; Mi is the coefficient, considering the increase in the power of interference at the expense of receiving emissions of other similar broadcasting stations, the signals of which can be received where the receivers of OBP-AM television broadcasting stations are located when they are operating on the same frequency channel in dB.

The minimal values of the field intensity of the signal (corresponding to the power-flux density Ftqp) for an OBP-AM television service were established by the MKKR (10).

The value Dd in relation to the angles at which the useful signal and interference arrive at the receiving antenna of the OBP-AM television broadcasting service can be changed from 0 to Dd maximum (the maximum coefficient of interference immunity of the receiving antenna of an OBP-AM television broadcasting service in dB); 0 dB corresponds to the angles of arrival, by which the amplification of the receiving antenna for the useful signal and the interference is identical. When estimating the value Fs in a common instance one should be orientated toward the worse case, i.e., to take the value of Dd = 0. If the angles of arrival of the useful and hindering signals are known and are not equal to each other, then the value of Dd is considered separately for each specific instance.

It does not require much work to evaluate the value of the coefficient Dp, if one knows the types of polarizations of the field of the useful signal and interference. However, as theoretical research shows, to precisely define the type of polarization of an actual field can only be accomplished within the limits of the main lobe of the polar diagram of the antenna; in side lobes in practice the type of polarization can differ substantially from what is calculated in theory. With the narrowness of the main lobe of the polar diagram of the antenna to estimate the value of the coefficient Dp for the entire range of arrival angles of interference to the antenna of the receiver of the OBP-AM television broadcasting service is not possible. If one takes into consideration that in FM television broadcasting systems they use, as a rule, oscillations with a circular polarization of the field and in OBP-AM television broadcasting systems they use a linear polarization, then with the interference that is created by the main lobe of the transmitting antenna of the FM television broadcasting system, the value Dp can be taken as equal to 3 dB; with the interference that is created by the side lobes, the value of this coefficient will be substantially less. For planning, apparently, it is wise not to take the maximum values of Dp, but somewhat less, for example 2 dB.

The value of the coefficient Mr can be changed from 0 to 6 dB in relation to the nature of the reflecting surface and the phase of the reflected wave (zero corresponds to the instance of scattered reflection; 6 dB is the mirror reflection and in-phase composition of the direct and reflected waves). In the UHF band and at higher frequencies, where it is expedient to use FM, a semi-scattered or scattered reflection of waves from the earth's surface is almost always observed; if a mirror reflection is observed at all it is seen at relatively flat areas with very small angles of arrival of oscillations to the earth's surface, and its probability in an actual situation is extremely small.

Taking this circumsntance into consideration, one can estimate the reflection from the earth's surface for frequencies higher than 500 MHz on the average to be close to the scattered reflection, and the value of the coefficient Mr with the estimate of Fs to be equal to 3 dB.

The allowance for the increase in power of the interference at the expense of the reception of radiations from other similar stations operating in the same frequency range must be done separately for each specific situation. Since the likelihood of even two FM television broadcasting stations operating on a common frequency channel in neighboring zones is small, one can in estimating Fs take Mi as equal to 0.

On the basis of the above-noted considerations for estimating values, which are included in the estimating formula for Fs, as well as the experimental research on determining the suppression ratios in television, one can, in this manner, estimate the permissible value of the power-flux density of a television FM signal in the zone served by OBP-AM television broadcasting stations.

Having inserted numerical values of the coefficients into the cited formula, for example for the V television band, we obtain

$$Fs = -77 - Roq + \gamma, \ dBW/m^2,$$

where

$$\gamma = 0.4\ (Dv - Dov) + M_{\alpha}\ Ddv -$$

the correction factor, which depends upon the distribution of the power of the FM interference considering its visual perception.

At angles between directions toward the sources of the signal and interference greater than 20 degrees one must make a correction, as is recommended in (9).

Conclusion. The research that was performed confirmed the correctness of standardizing suppression ratios when there is interference to the reception of OBP-AM television systems by an FM signal by taking its parameters into consideration. The results that were obtained take into consideration the peculiarities of visual perception of interference and can be used for various known color television systems with OBP-AM.

The basic premises of this article were contributed to the MKKR by the USSR.

BIBLIOGRAPHY

(1) MKKR, Report 634 (Rev. 1976).
(2) MKKR 1970-1973. Document 11/126, European Broadcasting Union.
(3) MKKR 1970-1973. Document 11/64, USA.
(4) MKKR. Report 306-2, 1974.
(5) Lokshin M. G. "Combining Ground and Satellite Television Broadcasting Systems", ELEKTROSVYAZ', 1975, No 9.
(6) MKKR 1970-1973. Document 11/58, England
(7) MKKR 1970-1973. Document 11/49, USA.

(8) MKKR 1970-1974. Document 11/339, France.
(9) MKKR. Report 631, 1974.
(10) MKKR. Recommendation 417-2, 1974.

(This article was submitted to the editorial board on 30 October 1978.)

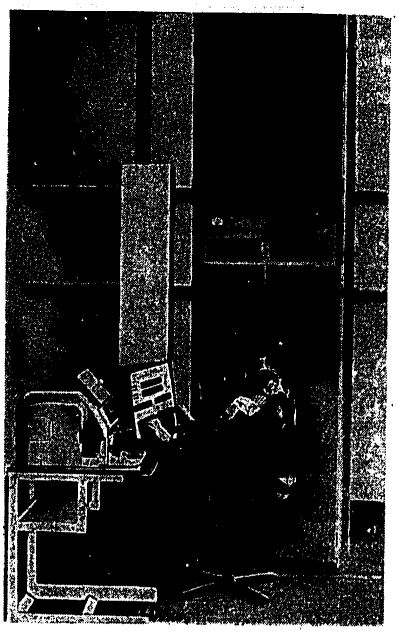
8927
CSO: 5500

USSR

THE ATK-20U AUTOMATIC TELEGRAPH CROSSBAR STATION

Moscow ELEKTROSVYAZ' in Russian No 7, Jul 79 p 23

/Text/ The ATK-20U is intended for the automatic switching of lines from subscribers (terminals) on systems of subscriber telegraph and direct communications operating at a speed of 50 bauds, and systems for transmitting data operating at a speed of up to 200 bauds with connecting lines (channels) to a higher (reference) station. The ATK-20U is installed in regional communications centers and serves as a terminal switching station.



The station consists of: an ATK-20U rack, a TsRK switchboard for transmitting conference communications and for the technical and operational control of the operation of subscriber units and terminals operating at a speed of telegraphy of up to 50 bauds, and a panel for checking the station's electronic units. The station's capacity is 20 terminal lines and 8 channels to one or two reference stations. The subscriber sets have two- and four-wire outlets.

The station is capable of establishing initial, incoming and local connections; local connections can be made without tying up channels to the reference station. The ATK-20U operates with these kinds of reference stations: AT-PS-PD, ATA-K, APS-K, APS-SH, ATA-57 and the Yugoslavian station that is manufactured by the "Nikola Tesla" plant, both R and D types.

The ATK-20U uses DC power and a voltage of ± 60W; the TsRK switchboard uses DC and a voltage of ± 60W and AC with a voltage of 220W.

The ATK-20U was designed by the Sverdlovsk branch of the Central Design Bureau of the USSR Ministry of Communications.

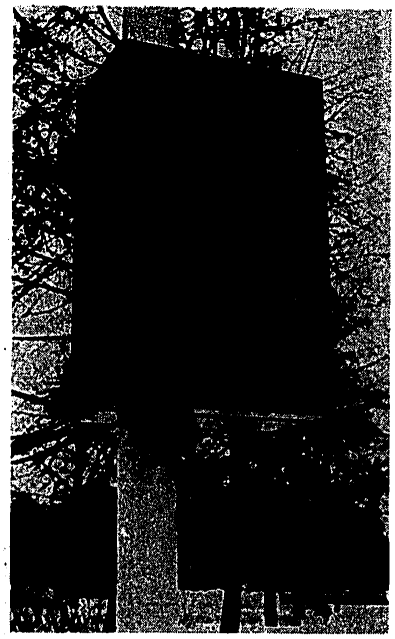
8927
CSO: 5500

USSR

THE NUP V-2-2 UNATTENDED REPEATER STATION

Moscow ELEKTROSVYAZ' in Russian No 7, Jul 79 p 31

/Text/ The NUP V-2-2 unattended repeater station is intended to increase the distance of communications between terminal stations of the V-2-2 transmission system, which operates on an open-wire circuit in a frequency range of 4.63 to 25.7 KHz.



The NUP is constructed in the form of a molded rectangular casing with two hermetically sealed compartments. The first compartment contains two each mounting plates of line and guide filters, a mounting plate of amplifiers for the upper and lower groups of frequencies, a mounting plante for the automatic regulating of amplification and a mounting plate for the remote power supply. The second compartment contains devices for shielding the NUP, an input device, control jacks and a guide pin control panel. The control jack for the HF channel can be used for official communications when the NUP is being adjusted or during preventive maintenance.

The NUP is equipped with stabilivolt cables, which permit it to be switched into the open-wire circuits. To protect the NUP from the direct rays of the sun and precipitation it is provided with a protective cover.

The NUP is installed on a post or a reinforced concrete extension at a height of no more than 1.5 meters above the ground.

The NUP's power is supplied remotely from a station battery with a nominal voltage of 60W. The nominal value of the required current is 110 milliamperes. The maximum amplification of the NUP at a frequency of 25.7 KHz is no less than 33.8 dB and at a frequency of 12.7 KHz no less than 22.5 dB. The nominal input resistance is 800 ohms. The dimensions of the NUP are 600 X 430 X 240 mm; it weighs 30 kg.

The Sverdlovsk branch of the Central Design Bureau of the USSR Ministry of Communications designed the NUP V-2-2.

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REGIS DEBRAY AUTHORS NEW BOOK ON POLITICAL USE OF MEDIA

Societal Role of Media

Paris FRANCE NOUVELLE in French 23-29 Jun 79 pp 35, 36

/Review by Michel Jouet of new book by Regis Debray: "Le pouvoir intellectuel en France"/

/Text/ We must admit that Regis Debray's book is stimulating; it is worth discussing. Again taking up and developing Pierre Bourdieu's analyses on the intellectual sphere, Regis Debray exposes the mechanisms by which intellectual life is dominated by a small number of "mediacrats" (media people).

He points out the historic evolution of the legitimate process of ideas. After the university cycle, marked by the hegemony of the colleges, comes the editorial cycle occupied by publishing houses and magazines. We have now entered the media era. How is this new era characterized?

Knowledge is replaced by the market. Why, the author asks, spend 10 years of one's life thoroughly delving into a question "when I need only 1 month's work to vitriolate an ideological pamphlet on the subject of the day (Goulag and destion), which will give me a name in the major press network, and only 1 hour of vivacity on television to become a national hero?" (page 182).

Mediacracy

The power of the media to obtrude an author, an idea, cannot be seriously questioned. Regis Debray notes that "in 1950, no philosopher--influenced by fear of ridicule--would have dared publish a work such as those which have recently appeared in magazines, for the university environment had remained sufficiently close-knit to function as a self-censuring agent"; now, however, "since the market is the governing factor and the university no longer has a monopoly on intellectual realities, it is not at all unreasonable to create a complete impasse for 2,000 professionals by opposing them with 1 million magazine readers and 10 million television viewers" (page 39).

To that is added the concentration, not only of the media themselves but within the mediacracy controlled by a few individuals who arrange television

and radio broadcasts, of reports in the written press, positions on the editorial staffs or publishing house advisers.

At this point, Debray makes an important observation: "The cycle initiated by the media does not announce the apotheosis of professional journalism but rather its decline. Mediacracy is not blended with the reign of professional journalists; rather, it signifies first and foremost their annihilation, as the logic of the mass media is unaware of procedures aimed at revealing current reality" (page 102). "At the top of our journalistic hierarchy the 'publicist' of the 19th century has been spontaneously replaced by the editorial writer, the moralist of present-day events, whose function, as everyone admits, is not to enlighten readers on the details and issues of a given situation but on the position he chooses to take in relation to no one ever knows precisely what."

This statement is harsh but gives a perfect description of what everyone can hear or read daily in the televised, written or spoken press.

Moreover, there is not only no competition but, on the contrary, a cumulative effect. Each of the major newspapers is on the lookout for what the other says. Whoever has "had" the EXPRESS is sure to have LE NOUVEL OBSERVATEUR and LE POINT. Formerly, Regis Debray tells us, the journalist sought that of which the others had not spoken; now he waits to see what they will say.

Thus, the media have life and death power over intellectual creation. Capital punishment is not a descent into flames; silence is sufficient and is even more effective. Let us complete this rapid panorama by pointing out that the author embellishes his severe analysis with many observations of a very effective grating humor. For example, he writes: "Imperialism is justified only as anti-imperialism. This general rule has comic aspects in its execution, as one sees at present on the French ideological scene; here, our top leaders, who have taken control of the principal channels of distribution of consumer goods as well as the switching of those channels, take on with conviction the pathetic aspect of a handful of snipers barehandedly firing their last cartridges, 'their backs to the wall and their heads empty,' against the heavy battalions of Marxism, dogmatic and totalitarian."

Questions to Be Discussed

Although quite engaging, Debray's analysis merits discussion. For the sake of clearness, I would limit my remarks to a single question.

The phenomena he describes seem hardly disputable. But can one go along with him when he writes: "It is time to ask ourselves if 'middle-class intellectual' stereotyped expression has not become redundant" (page 253). An intellectual could escape this epithet only by accident, will or morale (page 254). To be sure, the author himself tempers this evaluation by the distinction he makes between the upper intelligentsia and the lower

intelligentsia, a separation he borrowed from the division between the upper and lower clergy of the Old Regime. Even with this important distinction, the judgment he makes deserves discussion.

First, there is an indication of implicit equality between production by the "upper intelligentsia" and ideology.

That difference should at least be expressed. In fact, a substantial part of the "upper intelligentsia" is involved in scientific research or production and is only secondarily connected with the media. However, this does not imply that it is "outside" the ideological sphere.

It is one thing to say that the main sources of the media are beleaguered and solidly confined by the "hidden face of governmental power," to quote a statement which appears on the book's jacket; but one cannot deduce from this that the media are merely an instrument of that power. To admit this state of affairs would, to say the least, create an impasse in the path of the struggles which, for example, are taking place around and within television itself. And this under the double aspect of internal struggles--one can cite the complaints of television producers in this respect--and of contradictions which arise in society as a result of the role of the media itself.

The demand for free expression, for the establishment of free radio broadcasts, is a very significant part of this movement. The recent example of "Lorraine, "Steel Center" shows the vital importance of its stake.

And Its Contradictions?

Although it is rightful and necessary to analyze the intellectual sphere in its autonomy, one cannot, however, separate it from the overall movement of society's contradictions. Even what the author calls the "upper intelligentsia" is pervaded by society's divisions and differences of opinion. And not just for moral reasons. Basically, Debray draws a parallel between an analysis of the role of the media in production, the reproduction of the prevailing ideology and the retention of social structures on the one hand and an analysis of the participants in the media on the other. It is as though the model of the presenter of a televised newscast made it possible in some manner to depict all of the participants in the media. Pursuing this line of thought, all journalists should, as such, be considered agents of the government. In that case, one thing would be to fight against the current media organization, for their democratization, to criticize vehemently not only the omissions and distortions of the news but also and especially to question the media's "language," the image they give of politics, in the structuring involved in the roles they play: on the one hand, the "professionals" of politics who are knowledgeable, who have the ability to act and do so; on the other, the citizens who, at best, would have the task of arbitrating the match between the professionals.

Another thing is an en masse rejection of news professionals and media "participants" in the area of unrecuperable enemies of the worker movement.

Lastly, somewhat as a logical result of his analysis, Regis Debray seems to reduce the ideological struggle to its most obvious aspect, that is, to what is taking place in the sphere of books, magazines, newspapers and other media.

From that time on, other forms of struggle become secondary. Thus, speaking of the Popular Front, he writes: "The battle of the newspapers undoubtedly had more influence than street battles" (page 92).

This appraisal is debatable not only because it seems to reduce the struggles of that era to street battles and battles among the newspapers, not only because it seriously understates the decisive role of the working class in the conflicts of the Popular Front, but also, and perhaps this is the crux of the problem, because it makes the newspapers the exclusive instrument of the ideological struggle. To be sure, that struggle is taking place in a particular sphere of activity, but it is also and especially taking place in the area of social practice in which the struggles constitute a significant element of change.

This observation is of fundamental importance. In fact, one of the essential elements in media expression is to try to make us believe that they are the absolute weapon.

However important the media may be, the most important element is found within society itself, in its struggles for change, including change in the media. This is precisely what the media would have us forget.

To be sure, these few remarks do not presume to exhaust the comprehensive discussion which should be made on the role and political function of the media and, particularly in the case of television, on their influence on the evolution of the televised production and diffusion process. Regis Debray's book makes a very important contribution to that discussion.

Mediology, Technology, Ideology

Paris PARADOXES in French May-Jun-Jul 79 pp 155-157

/Review by Pierre de Boisdeffre of Regis Debray's book: "Le pouvoir intellectuel en France" (published by Ramsay)/

/Text/ In writing "Le pouvoir intellectuel en France," Regis Debray tackled a big subject, and he handled it very seriously. Perhaps too seriously: the author recalled that, before becoming Che Guevara's companion, the Malraux of the Andean plateaus and Camiri's prisoner, he had been a graduate of the Higher Normal School and doctor of philosophy. At present, the prestige of the revolutionary, even reconverted to institutional socialism (for the former

convict condemned to death has become a close collaborator of Francois Mitterrand), appears to him of less significance than that of the sociologist. He cannot refrain from telling us, ad limina, that his new book is only a fragment of "a broader theoretical work entitled 'Traite de mediologie,' about to be published." Why "mediology"? Is it because this pretentious term rhymes with "semiology," so much in fashion, or sounds more "intellectual" than the word "media," already abundantly popularized?

In any case, the author speaks to us of intellectual power, and he does so with full knowledge of the facts. Since his return to Paris, he has taken part in the exercise of this power, and not only through an intelligent piece on Bernard Pivot's broadcast, in APOSTROPHES. He has experienced "the intoxication of journalistic celebrations, polemics of complicity and advertising gallantry": he has simultaneously experienced the dreadful commercial effectiveness and profound vanity of that intoxication. He is not completely innocent in view of the fact that he indulged in that game; but he is not really an accomplice, since he retained enough critical spirit to write this book. To avoid being accused of singleness of purpose, he sent his manuscript to at least a dozen licenced observers and took their remarks into consideration. The book as a whole gives a rather lively indictment backed by many facts and examples. Balzac would have made a novel out of them:

In fact, the Balzac of the "Illusions perdues" who, as Regis Debray notes, "radically escaped naturalist vulgarity," perhaps remains, after more than a century, the best observer of our social system, one who ingeniously debunked the mechanisms for getting ahead in French society. Our author, who reproduces the ever current tableau of the "Order of Men of Letters," which appears in "la Grande Ville" (1843), does not hesitate to make him "the founding father of mediology."

However, he wishes to be more precise. He proceeds to make an actual count of the intelligentsia, whose evolution we observe in the Third, Fourth and Fifth Republic. Immediately following the last war, the number of people in the so-called intellectual group was already equal to or greater than the number of clergy or engineers (about 100,000), a figure which has now increased to 400,000 due to a mass entry of teachers into literary activity. (The number of "artists" is thought to have remained the same, about 60,000.) The "university cycle" of the years 1880-1930 was succeeded by an "editorial cycle" between 1920 and 1960, but, since 1968, we have definitely entered the media age. Here are some interesting observations: "When the professor declines, the author reascends. Public counterpoint of the university twilight: the return of the academy. Competition between the Sorbonne and the Quai Conti stems from a line of secular fracture. When, in APOSTROPHES, Jean Dutourd, FRANCE-SOIR newspaperman, now wishes to thrash Robbe-grillet, his rap on the nose is backed by three centuries: "The professors are on your side; you have the Sorbonne with you!"

Perhaps Debray does not attach enough importance to the decomposition of the scholastic apparatus on which republican intellectualism relied for such a

long time. It is obvious that the mass media have not been able to replace that intellectualism, for they function in accordance with the individual, not the group; with the sensational, not what is intelligent; with unusual incidents, not what is standard. They simultaneously impose an individualistic strategy and collective disorganization. The great castling maneuver of the "newspaperman" and the "author" is the destitution of the work by the event. Further on, he remarks that cultural rhythms are as slow as those of nature. The shocks of current events, the bustling rhythm of publishing, the annihilation of the basic work by the best-seller arrangement contribute to that decomposition: the game won by Samuel Beckett, selling 126 copies of "En attendant Godot" in 1952 and receiving the Nobel prize 15 years later, will become unplayable. Accelerated feminization of the teaching milieu and consequently of the literary milieu is not a good sign, since, in our types of society, "feminization" means "class deterioration." But there are other signs: the theater crisis, more acute in France than elsewhere; the decadence of poetry (which does not exist in the Third World); and the development of a complete strategy of corruption, which flourishes in the literary milieu.

To conclude, Regis Debray distinguishes between an upper and lower clergy within a triumphant intelligentsia in which yesterday's "leaders" feel ill at ease. Since everything is for sale, one must know the rules of this competitive society whose newness is exaggerated by Debray, for senna and rhubarb have been exchanged for as long as can be remembered! The fact that he frequently cites Balzac and Thibaudet is sufficient proof of that exaggeration.

His conclusion is not cheerful; it is given with a statement from Milan Kundera: "Until now, progress has always been conceived as a promise of something better. We now know that it also carries the announcement of an end." Contrary to preconceived ideas, "Technology and ideology" are not in inverse terms but in direct proportion: the more complex the first, the simpler the second, therefore more powerful. The new technology in news dissemination gears down the practical power of ideologies. But the era of intelligentsia which is beginning risks becoming that "of the greatest lack of intelligence." And the author risks checking off the cost of news ("Bad information chases away the good, because truth costs more and more"), a decrease in editorial pages in the written press, the reduction of criticisms into "printed capsules," and the disappearance of polemics. He could have added the development of astrology and the growing weakness of radio on the basis of pop music.

Is the conclusion too pessimistic? Perhaps, for nothing ever happens in the world the way the prophets of knowledge predict. But those who are interested in the evolution of our society should read this document which has only the appearance of a pamphlet.

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